

F. Christopher Austin (SBN 6559)
WEIDE & MILLER, LTD.
10655 Park Run Drive, Suite 100
Las Vegas, Nevada 89144
Telephone: (702) 382-4804
Email: caustin@weidemiller.com

Adam D. Swain (Pro hac vice)
ALSTON & BIRD
950 F Street, NW
Washington, DC 20004
Telephone: (202) 239-3622
Email: Adam.Swain@alston.com

Jeremy P. Occek (Pro hac vice)
BOND, SCHOENECK & KING, PLLC
200 Delaware Avenue
Buffalo, New York 14202
Telephone: (716) 416-7000
Email: jpoccek@bsk.com

J. Ravindra Fernando (Pro hac vice)
ALSTON & BIRD
1120 South Tryon Street, Suite 300
Charlotte, NC 28203-6818
Telephone: (704) 444-1136
Email: Ravi.Fernando@alston.com

Jonathan L. Gray (Pro hac vice)
BOND, SCHOENECK & KING, PLLC
One Lincoln Center
Syracuse, New York 13202
Telephone: (315) 218-8500
Email: jlgray@bsk.com

*Counsel for Plaintiffs
Signify North America Corporation
and Signify Holding B.V.*

**UNITED STATES DISTRICT COURT
DISTRICT OF NEVADA**

SIGNIFY NORTH AMERICA
CORPORATION and
SIGNIFY HOLDING B.V.

Plaintiffs,
vs.

LEPRO INNOVATION INC,
LE INNOVATION INC,
INNOVATION RULES INC.,
HOME EVER INC., and
LETIANLIGHTING, INC.,

Defendants.

Case No.: 2:22-cv-02095-JAD-EJY

**PLAINTIFFS' MOTION FOR
PARTIAL SUMMARY JUDGMENT
ON ISSUES OF INFRINGEMENT AND
DEFENDANTS' INVALIDITY
DEFENSES**

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Exhibit 16 U.S. Provisional Patent App. No. 61/167,556 (“the ’556 Provisional”)

Exhibit 17 Video of demonstrator bulb, September 16, 2008 (SIGNIFY00090360)

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1 **I. INTRODUCTION**

2 With fact and expert discovery closed, Plaintiffs Signify North America Corporation and
3 Signify Holding B.V. (collectively, “Signify”) respectfully submit that now is an appropriate time
4 to prepare the case for patent trial and pare back issues to be tried. Pursuant to Federal Rule 56 and
5 Local Rule 56-1, Signify moves for partial summary judgment on the following issues:

6 **(1) Infringement of the ’399, ’138, and ’577 Patents**

7 With respect to the ’399, ’138, and ’577 Patents, Signify supported its infringement case
8 with detailed analysis and expert reports from two distinguished technical experts: Dr. Regan Zane
9 for the ’399 and ’138 Patents, and Dr. Jonathan Wood for the ’577 Patent. For each of these patents,
10 Drs. Zane and Wood provided an element-by-element analysis of the infringement of every
11 asserted patent claim. In response, however, Defendants’ sole technical expert witness, Dr. John
12 W. Curran, provided *no* rebuttal opinions of non-infringement for the ’399, ’138, and ’577 Patents.
13 Because Signify’s technical expert witnesses have provided unrebutted expert testimony
14 demonstrating that the accused products meet each and every element of the asserted claims of
15 these patents, and because Defendants have failed to adduce any facts in support of
16 noninfringement (such as rebuttal expert testimony), Defendants cannot raise a genuine issue of
17 material fact refuting infringement of the asserted claims of the ’399, ’138, and ’577 Patents.

18 **(2) Defendants’ Invalidity Defense Under Section 112**

19 Defendants’ affirmative defense under Section 112 should be dismissed because
20 Defendants’ technical expert witness, Dr. Curran, provided no invalidity opinions under Section
21 112 (written description, enablement, and indefiniteness). These defenses must be proved by clear
22 and convincing evidence and require expert testimony. Attorney argument is not enough. Without
23 expert testimony, Defendants’ alleged defense under Section 112 should be dismissed.

24 **(3) Defendants’ Invalidity Defense for the ’320 Patent**

25 Defendants’ invalidity defense for the ’320 Patent is based on a single patent reference,
26 Recker, that does not qualify as prior art. Defendants contend that Recker is available as prior art
27 because it claims priority to a U.S. provisional application (“the ’556 Provisional”) that was filed
28

1 before the '320 Patent. However, Defendants' invalidity defense as to the '320 Patent fails for two
2 independent reasons, each of which sinks their invalidity defense.

3 *First*, Defendants cannot establish that Recker is entitled to the filing date of the '556
4 Provisional, or any other provisional application, under the requirements set forth by the U.S.
5 Court of Appeals for the Federal Circuit in *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800
6 F.3d 1375 (Fed. Cir. 2015). Because Recker is not entitled to rely on the filing date of the '556
7 Provisional, Defendants may only rely on the filing date of the Recker patent itself, which is
8 November 26, 2009. Defendants do not dispute that the '320 Patent is entitled to a filing date of
9 June 5, 2009, which is six months *before* the filing date of Recker. As Defendants' entire invalidity
10 defense rests on Recker, and that reference does not predate the June 5, 2009 effective filing date
11 of the '320 Patent, Defendants' invalidity defense for the '320 Patent fails as a matter of law.

12 *Second*, the invention of the '320 Patent was reduced to practice by September 16, 2008.
13 Before the filing of the applications that led to issuance of the '320 Patent, the inventors developed
14 a physical light bulb with a functioning antenna. Signify has possession of the files that were
15 created in the development of this product, which was referred to as a "demonstrator." The
16 contemporaneous files show that the demonstrator practiced the claims of the '320 Patent and was
17 completed by September 16, 2008. Accordingly, because the '320 Patent was reduced to practice
18 by September 16, 2008, Defendants' alleged prior art (including both the '556 Provisional and the
19 Recker patent) cannot invalidate the '320 Patent.

20 **(4) Defendants' Invalidity Defense for the '399 and '138 Patents**

21 With respect to the '399 and '138 Patents, every aspect of Defendants' invalidity defense
22 is based on a primary reference, Timmermans, that Defendants contend serves as prior art
23 disclosing most aspects of the asserted claims of those patents. Defendants' expert, however, has
24 conceded that Timmermans is not enabling with respect to certain features and that one of ordinary
25 skill in the art at that time would not know how to implement those features. Defendants' defense
26 of invalidity as to the '399 and '138 Patents is thus inherently defective. As a result, Defendants
27 cannot raise a genuine issue of material fact regarding the invalidity of the '399 and '138 Patents.

II. THE COURT SHOULD ENTER PARTIAL SUMMARY JUDGMENT OF INFRINGEMENT REGARDING THE '399, '138, AND '577 PATENTS

A. Concise Statement of Material Facts

In accordance with Local Rule 56-1, Signify submits the following concise statement of material facts relevant to the disposition of the first issue presented for summary judgment.¹

1. Defendants stand accused of infringing the '399, '138, and '577 Patents.²

2. Defendants filed an Answer in this case alleging broadly, without any substance or facts, that the accused products do not infringe the '399, '138, and '577 Patents.³

3. During claim construction, Defendants proposed narrow constructions for (i) the terms “controller,” “adjustment circuit,” and “power circuitry” in the '399 and '138 Patents and (ii) the terms “connected/coupled in series” in the '577 Patent.⁴ These narrow constructions were the primary basis for Defendants’ non-infringement positions for the '399, '138, and '577 Patents.⁵

4. The Court rejected Defendants’ proposed constructions for the '399, '138, and '577 Patents and instead adopted Signify’s plain and ordinary meaning constructions.⁶

5. Signify served a report from its expert, Dr. Regan Zane, setting forth an element-by-element analysis of the facts supporting a finding of infringement of each of the asserted claims of two of the Patents-in-Suit, the '399 and '138 Patents, including a detailed analysis of how the structure of the accused products satisfied every limitation of the asserted claims.⁷

6. Signify served a report from its expert, Dr. Jonathan Wood, setting forth an element-by-element analysis of the facts supporting a finding of infringement of each of the asserted claims of one of the Patents-in-Suit, the '577 Patent, including a detailed analysis of how the structure of the accused products satisfied every limitation of the asserted claims.⁸

¹ Attached hereto as Ex. 1 is the Declaration of Jeremy P. Occek (“Occek Decl.”).

² See ECF 1, Complaint for Patent Infringement.

³ See ECF 26, Defendants’ Answer to Plaintiffs’ Complaint, Second Defense, at pg. 21.

⁴ See ECF 91, Claim Construction Order.

⁵ See Ex. 1, Occek Decl., at ¶ 23.

⁶ See ECF 91, Claim Construction Order.

⁷ See Ex. 2, Zane Report; Ex. 3, '399 Claim Charts; Ex. 4, '138 Claim Charts.

⁸ See Ex. 5, Wood Report; Ex. 6, '577 Claim Charts.

7. Defendants' expert, Dr. Curran, served a rebuttal report that did not provide any opinions of non-infringement of any of the asserted claims of the '399, '138, and '577 Patents. He stated: "I was asked to not spend any time responding to Dr. Wood's Expert Report regarding the '577 Patent. Thus, I am not providing any opinions here in response to that report."⁹ He also stated: "I was asked to not spend any time responding to Dr. Zane's Expert Report regarding the '138 and '399 Patent. Thus, I am not providing any opinions here in response to that report."¹⁰

8. In a deposition on October 16, 2024, Dr. Curran confirmed that he did not have any opinions on the issue of infringement of the asserted claims of the '399, '138, and '577 Patents.¹¹

9. In particular, Dr. Curran testified that he has not provided any opinions in this case regarding infringement of Defendants' accused products for the '138, '399, and '577 Patents.¹²

10. Also, Dr. Curran did not rebut Dr. Zane's element-by-element analysis that the accused products infringe each asserted claim of the '399 Patent.¹³

11. In addition, Dr. Curran did not rebut Dr. Zane's element-by-element analysis that the accused products infringe each asserted claim of the '138 Patent.¹⁴

12. Finally, Dr. Curran did not rebut Dr. Wood's element-by-element analysis that the accused products infringe each asserted claim of the '577 Patent.¹⁵

B. Signify Is Entitled to Summary Judgment of Infringement

"When a patentee with the burden of proof seeks summary judgment of infringement, it must make a prima facie showing of infringement as to each accused device before the burden shifts to the accused infringer to offer contrary evidence." *L & W, Inc. v. Shertech, Inc.*, 471 F.3d 1311, 1318 (Fed. Cir. 2006). Once the moving party has met its initial evidentiary burden, the non-moving party can no longer rest on mere allegations and must set forth specific facts. *FastShip*,

⁹ Ex. 7, Curran Rebuttal Expert Report at ¶ 83.

¹⁰ Ex. 7, Curran Rebuttal Expert Report at ¶ 84.

¹¹ See Ex. 8, Curran 10/16/2024 Transcript at pg. 400, line 20 to pg. 407, line 15.

¹² See Ex. 8, Curran 10/16/2024 Transcript at pg. 400, line 20 to pg. 401, line 10.

¹³ See Ex. 8, Curran 10/16/2024 Transcript at pg. 402, line 21 to pg. 403, line 19.

¹⁴ See Ex. 8, Curran 10/16/2024 Transcript at pg. 404, line 6 to pg. 405, line 9.

¹⁵ See Ex. 8, Curran 10/16/2024 Transcript at pg. 406, line 12 to pg. 407, line 15.

1 *LLC v. United States*, 892 F.3d 1298, 1307-08 (Fed. Cir. 2018) (quoting *Lujan v. Defs. of Wildlife*,
2 504 U.S. 555, 561 (1992); see *Optivus Tech., Inc. v. Ion Beam Applications S.A.*, 469 F.3d 978, 990
3 (Fed. Cir. 2006) (when a movant supports its motion with sufficient evidence to make a prima facie
4 showing, “the burden of production then shift[s] to [the nonmovant] to identify genuine issues that
5 preclude summary judgment.”). If the non-moving party cannot set forth any specific facts in
6 support of its position, summary judgment in favor of the moving party may be granted. See
7 *Anderson*, 477 U.S. at 249–50.

8 Signify can satisfy its burden to present a prima face case of infringement for the ’399,
9 ’138, and ’577 Patents. Signify disclosed testifying expert witnesses (including Drs. Zane and
10 Wood) to support its allegations of infringement and served reports with factual details, including
11 which structure in each of the accused products corresponds to each limitation of each asserted
12 claim of the ’399, ’138, and ’577 Patents. See Ex. 2, Zane Report; Ex. 3, ’399 Claim Charts; Ex.
13 4, ’138 Claim Charts; Ex. 5, Wood Report; Ex. 6, ’577 Claim Charts.

14 More specifically, in the claim charts attached to the expert reports of Drs. Zane and Wood
15 provided under Fed. R. Civ. P. 26(a)(2)(B), these expert witnesses provided an element-by-element
16 assessment that maps each limitation of each asserted claim to the specific structure found in the
17 accused products and explains how and why this structure satisfies the requirements of each
18 asserted claim of the ’399, ’138, and ’577 Patents. See Ex. 3, ’399 Claim Charts; Ex. 4, ’138 Claim
19 Charts; Ex. 6, ’577 Claim Charts.

20 On the other hand, Defendants failed to adduce any competent and admissible evidence of
21 noninfringement. For instance, Defendants did not disclose any expert testimony under Fed. R.
22 Civ. P. 26(a)(2)(B) supporting its non-infringement defense for the ’399, ’138, and ’577 Patents.
23 In fact, Defendants’ expert witness, Dr. Curran, confirmed in his deposition on October 16, 2024
24 that he did not provide any opinions regarding noninfringement of the ’399, ’138, and ’577 Patents.
25 See Ex. 8, Curran 10/16/2024 Transcript at pg. 400, line 20 to pg. 407, line 15. As Defendants are
26 not entitled to rely on their initial noninfringement contentions as evidence (which, in any event,
27 were premised on Defendants’ rejected claim construction positions for the ’399, ’138, and ’577
28

Patents), Defendants have no admissible evidence supporting their noninfringement defenses as to the '399, '138, and '577 Patents. *See Aevoe Corp. v. AE Tech Co., Ltd.*, 40 F. Supp. 3d 1351, 1362-63 (D. Nev. 2014) (holding that claim charts produced in accordance with the local rules were not factual evidence to contest summary judgment) (Navarro, C.J.).

When, as here, a plaintiff can adduce evidence providing a thorough comparison of the accused products to the asserted claims with supporting expert testimony, a defendant cannot avoid summary judgment of patent infringement if it fails to provide any evidence supporting its non-infringement position. *See Edge Systems LLC v. Aguila*, 708 F. App'x 998, 1005 (Fed. Cir. 2017) (affirming summary judgment of infringement when accused infringer relied strictly on noninfringement contentions). In fact, this District has granted summary judgment of infringement in similar circumstances where an accused infringer failed to support its position with evidence of non-infringement. *Aevoe Corp.*, 40 F. Supp. 3d at 1357-58 (granting summary judgment of infringement due to defendant's failure to support its non-infringement position with factual evidence). Defendants cannot rely on arguments of their counsel to defeat summary judgment. *See Invitrogen Corp. v. Clontech Labs., Inc.*, 429 F.3d 1052, 1068 (Fed. Cir. 2005) ("Unsubstantiated attorney argument regarding the meaning of technical evidence is no substitute for competent, substantiated expert testimony."). Without expert testimony or evidence to rebut infringement of the '399, '138, and '577 Patents, Defendants cannot raise a genuine issue of material fact, and summary judgment of infringement is appropriate.

III. THE COURT SHOULD ENTER PARTIAL SUMMARY JUDGMENT ON DEFENDANTS' INVALIDITY DEFENSE UNDER 35 U.S.C. 112

A. Concise Statement of Material Facts

In accordance with Local Rule 56-1, Signify submits the following concise statement of material facts relevant to the disposition of the second issue presented for summary judgment:

1. Defendants stand accused in this action of infringing six Signify patents.¹⁶

¹⁶ ECF 1, Complaint for Patent Infringement.

2. Defendants filed an Answer in this case alleging broadly, without any substance or facts, that the Patents-in-Suit are invalid under 35 U.S.C. 112.¹⁷

3. Defendants bear the burden of proof on their affirmative defense of invalidity under 35 U.S.C. 112 by clear and convincing evidence.¹⁸

4. Despite bearing the burden of proof, Defendants have not produced or disclosed any evidence supporting their affirmative defenses of invalidity under 35 U.S.C. § 112 asserted in their invalidity contentions under Local Rule 1-8, 1-9.¹⁹

5. Defendants' expert, Dr. Curran, did not consider or otherwise form any opinions on the alleged invalidity of any patent under any aspect of 35 U.S.C. § 112.²⁰

6. Dr. Curran confirmed in his deposition on October 17, 2024 that he was not asked to consider these issues and that did not provide any opinions in this regard (which was further confirmed on the record by counsel for Defendants).²¹

B. Signify Is Entitled to Summary Judgment on the Section 112 Defense

Signify respectfully requests summary judgment dismissing Defendants' defense under 35 U.S.C. § 112 in view of Defendants' failure to adduce any evidence supporting its contentions.

The claims of a U.S. patent are presumed valid and the party contesting validity bears the ultimate burden of proving invalidity by clear and convincing evidence. 35 U.S.C. § 282(a); *Microsoft Corp. v. I4I Limited P'ship*, 564 U.S. 91, 95 (2011). Consistent with these principles, a patentee moving for summary judgment on an accused infringer's invalidity defenses need not present any "factual evidence" to prevail. *Massey v. Del Labs., Inc.*, 118 F.3d 1568, 1573 (Fed. Cir. 1997). While the Federal Circuit has not articulated an absolute rule requiring the use of expert testimony to support all defenses of patent invalidity, a claim of invalidity under 35 U.S.C. § 112 implicates many factual issues and considerations on which expert testimony is the only available

¹⁷ ECF 26, Defendants' Answer to Plaintiffs' Complaint, Third Affirmative Defense, at pg. 21.

¹⁸ *Transclean Corp. v. Bridgewood Services, Inc.*, 290 F.3d 1364, 1370 (Fed. Cir. 2002).

¹⁹ Ex. 1, Oczek Decl., at ¶ 24.

²⁰ Ex. 1, Oczek Decl., at ¶ 25.

²¹ Ex. 9, Curran 10/17/2024 Transcript at pg. 496, line 3 to pg. 497, line 11.

avenue for a defendant to prove its case. For example, indefiniteness and lack of enablement under 35 U.S.C. § 112 requires evidence regarding what a person of ordinary skill in the art would know in the relevant field or what such a person would understand from the disclosure of the patents. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 908 (2014) (holding that the written description, definiteness and enablement of a patent is to be considered according to the perspective of someone skilled in the relevant art).

Here, Defendants failed to adduce any expert opinions in support of their affirmative defenses under 35 U.S.C. § 112 and thus cannot satisfy their heavy burden of proof as a matter of law. *See Kologik Capital, LLC v. In Force Tech., LLC*, 693 F. Supp. 3d 115, 151 (D. Mass. 2023) (granting summary judgment dismissing invalidity defenses because the defendants failed to offer expert support for the invalidity defenses); *Terves, LLC v. Yueyang Aerospace New Materials Co. Ltd.*, 2022 WL 1092658, at *6 (N.D. Ohio, Apr. 12, 2022) (granting summary judgment dismissing Section 112 defenses in the absence of supporting expert witness testimony); *Lecat's Ventriloscope v. MT Tool and Mfg.*, 351 F. Supp. 3d 1100, 1114 (N.D. Ill. 2018) (dismissing various Section 112 defenses based on contentions requiring expert testimony).

Defendants have only one testifying technical expert, Dr. Curran, who has offered no opinions in support of Defendants' affirmative defense of invalidity under Section 112. Defendants may not rely on attorney argument for their Section 112 defense. *See Source Search Techs., LLC v. LendingTree, LLC*, 588 F.3d 1063, 1076 (Fed. Cir. 2009) (rejecting "conclusory statements and bald assertions" of indefiniteness); *Mallinckrodt, Inc. v. Masimo Corp.*, 147 Fed.Appx. 158, 179 (Fed. Cir. 2005) (rejecting indefiniteness claim when infringer "bases its indefiniteness challenge entirely on attorney argument" and "did not adduce any evidence to substantiate its claim of indefiniteness"); *Wirtgen Am., Inc. v. Caterpillar, Inc.*, No. 1:17-cv-00770, 2023 WL 2456090, *5 (D. Del. Mar. 10, 2023) ([A]ttorney argument [that patent is indefinite]... is not enough to overcome the presumption of patent validity by clear and convincing evidence); *WesternGeco L.L.C. v. ION Geophysical Corp.*, 876 F.Supp.2d 857, 875 (S.D. Tex. 2012) ("Defendants' unsupported attorney argument fails to prove indefiniteness by clear and convincing evidence").

There is no dispute that Defendants' sole testifying expert has offered no opinions with respect to the alleged invalidity of the Patents-in-Suit under any aspect of 35 U.S.C. § 112. Defendants thus have no competent evidence that can be introduced to support their defenses—an issue on which they have the burden to prove by clear and convincing evidence. Accordingly, granting summary judgment dismissing Defendants' Section 112 defense is appropriate.

IV. THE COURT SHOULD ENTER PARTIAL SUMMARY JUDGMENT ON DEFENDANTS' INVALIDITY DEFENSE FOR THE '320 PATENT

A. Concise Statement of Material Facts

In accordance with Local Rule 56-1, Signify submits the following concise statement of material facts relevant to the disposition of the third issue presented for summary judgment:

1. Defendants stand accused of infringing the '320 Patent.²²
2. Defendants filed an Answer in this case alleging broadly, without any substance or facts, that the '320 Patent is invalid.²³
3. Defendants bear the burden of proof on their affirmative defense of invalidity of the '320 Patent by clear and convincing evidence.²⁴
4. The '320 Patent, titled "Methods and Apparatus for Providing Power to Lighting Devices," was originally filed as an international Patent Cooperation Treaty (PCT) application on June 4, 2010, and includes a claim of priority to a Chinese application filed on June 5, 2009.²⁵
5. Other than minor translation differences, the certified translation of the Chinese application is a verbatim copy of the specification of the '320 Patent with the same figures.²⁶
6. Plaintiff's expert on the '320 Patent, Dr. David Ricketts, provided un rebutted testimony detailing the entitlement of the '320 Patent to claim priority to the Chinese application.²⁷

²² ECF 1, Complaint for Patent Infringement, Count Six, at ¶¶ 238-271.

²³ ECF 26, Defendants' Answer to Plaintiffs' Complaint, Third Defense, at pg. 21.

²⁴ *Transclean Corp. v. Bridgewood Services, Inc.*, 290 F.3d 1364, 1370 (Fed. Cir. 2002).

²⁵ Ex. 10, '320 Patent; Ex. 11, Chinese priority application (certified translation).

²⁶ Ex. 12, Ricketts 8/19/2024 Report.

²⁷ Ex. 12, Ricketts 8/19/2024 Report; Ex. 13, Claim Chart from Ricketts Report showing support in Chinese priority application.

7. Defendants' expert, Dr. Curran, testified in his deposition on October 15, 2024 that he did not offer an opinion or otherwise consider whether the '320 Patent is entitled to an effective filing date of June 5, 2009 based on its claim of priority to the Chinese application.²⁸

8. Dr. Curran challenged the priority claim for a *different* patent, the '336 Patent,²⁹ in his opening report, but did not challenge the priority claim for the '320 Patent.³⁰

9. On May 19, 2023, Defendants served their invalidity contentions pursuant to Local Patent Rule 1-8 alleging that the '320 Patent was invalid as anticipated or obvious in view of U.S. Patent No. 8,033,686 ("Recker"). Defendants did not chart any other references in their invalidity contentions for the '320 Patent.³¹

10. Recker stems from an application filed on November 26, 2009, more than five months *after* the priority date of the '320 Patent.³²

11. On June 5, 2023, Signify served responses to Defendants' invalidity contentions pursuant to Local Patent Rule 1-8 in which Signify expressly informed Defendants that they had provided no detail regarding which of the priority applications referred to in Recker provide support for the portions of Recker upon which Defendants rely.³³

12. On July 22, 2024, Defendants served an expert report of John W. Curran, Ph.D. alleging that the '320 Patent was invalid as anticipated or obvious in view of Recker and that Recker predated the '320 Patent because Recker includes a claim of priority to U.S. Provisional Patent App. No. 61/167,556 ("the '556 Provisional") filed on April 8, 2009. Dr. Curran's report cited no claim of priority to any other provisional of Recker.³⁴

²⁸ Ex. 14, Curran 10/15/2024 Transcript, at pg. 133, lines 11-23.

²⁹ On September 11, 2024, the Court granted partial summary judgement in favor of Signify and dismissed Defendants' invalidity defense as to the '336 Patent. ECF 152.

³⁰ Ex. 1, Oczek Decl., at ¶ 26.

³¹ Ex. 1, Oczek Decl., at ¶ 27.

³² Ex. 15, Recker.

³³ Ex. 1, Oczek Decl., at ¶ 29.

³⁴ Ex. 1, Oczek Decl., at ¶ 30; Ex. 16, '556 Recker Provisional.

13. Defendants' expert, Dr. Curran, has provided an opinion on invalidity that relies in its entirety on the availability of Recker as prior art.³⁵

14. Defendants' expert, Dr. Curran, did not provide any opinion whether the '556 Provisional provides support under 35 U.S.C. § 112 for any of the claims of Recker.³⁶

15. In sworn deposition testimony on October 15, 2024, Dr. Curran confirmed that he did not offer an opinion or otherwise consider whether the '556 Provisional provides support under 35 U.S.C. § 112 for the claims of Recker.³⁷

16. Before the filing of the applications that led to the issuance of the '320 Patent, the inventors of the '320 Patent developed a physical light bulb ("demonstrator") with a functioning antenna in September of 2008. The first demonstrator is shown operational in a video that has metadata dating it to September 16, 2008.³⁸

17. This same demonstrator is shown in photo with metadata of September 16, 2008.³⁹

18. Signify's technical expert for the '320 Patent, Dr. David Ricketts, provided expert testimony and demonstrated that the first demonstrator met every element of the asserted claims for the '320 Patent. The demonstrator included LEDs, an aluminum housing, and an RF board that included an antenna and the RF communication circuit in communication with the antenna, and the antenna was above the aluminum housing and all other metallic components of the bulb.⁴⁰

19. Defendants have been on notice since at least March 22, 2024 that Signify intended to rely on an earlier reduction to practice date for the '320 Patent. In response to Defendants' interrogatory no. 3, Signify provided the following response pertaining to the '320 Patent:

Regarding U.S. Patent No. RE 49,320, Signify directs Defendants to the deposition transcripts of Messrs. Martijn Lankhorst and Patrick Van Kooten. Signify further

³⁵ Ex. 1, Oczek Decl., at ¶ 31.

³⁶ Ex. 1, Oczek Decl., at ¶ 32.

³⁷ Ex. 14, Curran 10/15/2024 Transcript, at pg. 128, line 3 to pg. 130, line 7.

³⁸ Ex. 17, SIGNIFY00090360 video.

³⁹ Ex. 18, SIGNIFY00090221 image.

⁴⁰ See Ex. 12, Ricketts 8/19/2024 Report; Ex. 19, Ricketts Claim Chart showing that the demonstrator bulb meet all elements of the asserted claims of the '320 Patent.

1 directs Defendants to the documents contained in Signify's Vol006 production
 2 SIGNIFY00086952-91862. The documents in this production demonstrate a
 3 working prototype at least as early as September 16, 2008. *See*
 4 SIGNIFY00090356.⁴¹

5 20. Defendants had the opportunity to depose Dr. Martijn Lankhorst, one of the
 6 inventors on the '320 Patent, and examined him about the demonstrator.⁴² For example:

7 **Q. You mentioned a demonstrator. Can you describe for me what a**
 8 **demonstrator is?**

9 A. So a demonstrator I mean a physical realization of the pre-developed
 10 product and the demonstrator that actually works and can show the
 11 functionality that we were developing, that we were targeting for.

12 **Q. Would it be fair to say that the demonstrator is a prototype where you**
 13 **have reduced the invention in the R '320 Patent into practice?**

14 [Objection omitted]

15 **THE WITNESS:** So the demonstrator was a slight modification of concepts that
 16 we had earlier. The concept we had earlier were also used as embodiments
 17 in the invention disclosure and in the patents, so, yes.

18 21. Defendants' technical expert, Dr. Curran, did not address the earlier reduction to
 19 practice date for the '320 Patent in his expert report on alleged invalidity of the Patents-in-Suit,
 20 even though that Defendants were on notice since at least March 22, 2024 that Signify intended to
 21 rely on the earlier reduction to practice date.⁴³

22 **B. Signify Is Entitled to Summary Judgment on the '320 Invalidity Defense**

23 Under the patent statute, a patent enjoys a presumption of validity, *see* 35 U.S.C. § 282,
 24 which can be overcome only through facts supported by clear and convincing evidence, *see U.S.*

26 ⁴¹ Ex. 21, Signify's Supplemental Response to Defendants' Interrogatory No. 3.

27 ⁴² Ex. 20, Lankhorst 2/7/2024 Deposition Transcript at pg. 74, line 19 to pg. 75, line 13.

28 ⁴³ Ex. 21, Signify's Supplemental Response to Defendants' Interrogatory No. 3.

1 *Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1563 (Fed. Cir. 1997). When a non-movant cannot
 2 come forward with any evidence to support its defense, summary judgment is appropriate. *Celotex*
 3 *Corp. v. Catrett*, 477 U.S. 317, 325 (1986).

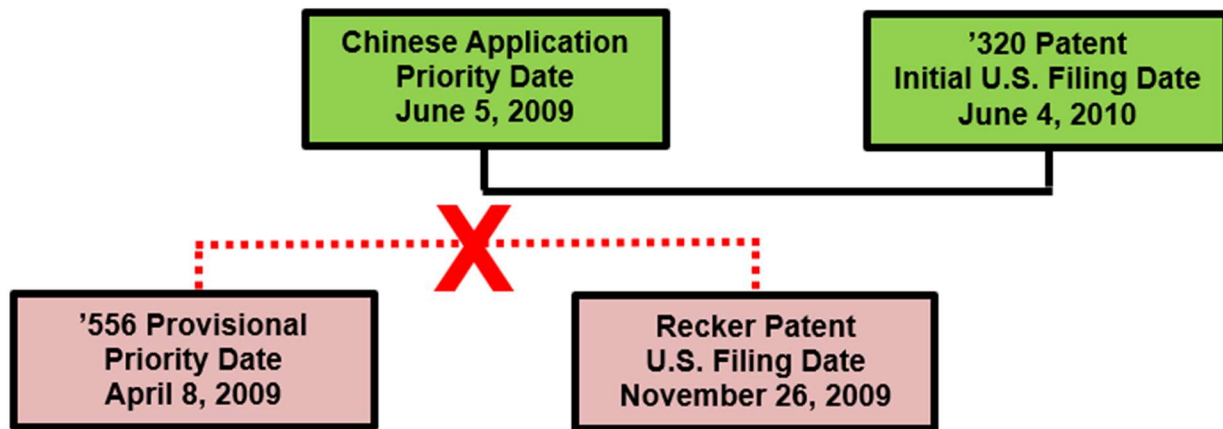
4 Signify requests that the Court grant partial summary judgment dismissing Defendants'
 5 invalidity defense to the '320 Patent because their invalidity defense depends in its entirety on
 6 Recker, which is not available as prior art because its actual filing date is after the earliest effective
 7 filing date of the '320 Patent. More specifically, Defendants cannot raise a genuine issue of
 8 material fact as to an earlier effective filing date for Recker. Also, Defendants failed to adduce any
 9 evidence challenging the entitlement of the '320 Patent to an earlier effective filing date of June 5,
 10 2009, which is *six months prior* to Recker and thus disqualifies Recker as serving as prior art.
 11 Additionally, the invention of the '320 Patent was reduced to practice by September 16, 2008. As
 12 Defendants' entire invalidity defense rests on a reference that does not qualify as prior art as a
 13 matter of law, summary judgment dismissing the affirmative defense is appropriate.

14 ***i. Defendants Cannot Introduce Any Evidence Showing that Recker Acts as***
 15 ***Prior Art Before November 26, 2009.***

16 With respect to the date on which Recker is available as prior art, a "reference patent is
 17 only entitled to claim the benefit of the filing date of its provisional application if the disclosure of
 18 the provisional application provides support for the claims in the reference patent in compliance
 19 with §112." *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1381 (Fed. Cir.
 20 2015). "In other words, the specification of the provisional must 'contain a written description of
 21 the invention and the manner and process of making and using it, in such full, clear, concise, and
 22 exact terms,' 35 U.S.C. § 112 ¶ 1, to enable an ordinarily skilled artisan to practice the invention
 23 claimed in the non-provisional application." *Id.* at 1378 (quoting *New Railhead Mfg., L.L.C. v.*
 24 *Vermeer Mfg. Co.*, 298 F.3d 1290, 1294 (Fed. Cir. 2002)). The party asserting invalidity bears the
 25 burden of proving the provisional provides written description support for the claims of the prior
 26 art reference. *Id.* at 1381. "Compliance with the written description requirement is a question of
 27 fact but is amenable to summary judgment in cases where no reasonable fact finder could return a
 28

verdict for the non-moving party.” *PowerOasis Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1307 (Fed. Cir. 2008).

Defendants contend that the ’320 Patent is invalid in view of Recker (and various combinations that require Recker). Recker, however, was filed *after* the priority date of the ’320 Patent. To predate the ’320 Patent, Defendants contend that Recker is available as prior art because it claims priority to the ’556 Provisional, which was filed before the ’320 Patent. As shown in the figure below, the dispute here concerns whether Defendants have established the link in priority for Recker represented by the **dashed red line** in the following diagram:



Defendants have *not* established—and cannot establish as a matter of law—that Recker is entitled to the filing date of the ’556 Provisional. Under *Dynamic Drinkware*, Defendants were required to come forward with evidence that the ’556 Provisional provides written description support for and enables the claims of Recker. *Id.* Defendants and their expert did neither.

Defendants failed to provide any evidence that can be used to satisfy the *Dynamic Drinkware* requirements. As Defendants bear the burden of proving invalidity by clear and convincing evidence, Defendants cannot survive the present motion for summary judgment. *See, Atlas Global Techs. LLC v. TP-Link Techs. Co., LTD.*, 2023 WL 5346490, at *5 (E.D. Tex., Aug. 1, 2023) (recommending grant of motion for partial summary judgment that asserted prior art patents were not entitled to provisional filing dates based on defendant’s failure to satisfy *Dynamic Drinkware* requirements). Defendants did not address whether the ’556 Provisional provides

1 written description support for and enables the claims of Recker in their invalidity contentions or
2 expert report, and Defendants cannot remedy their lack of expert testimony regarding the *Dynamic*
3 *Drinkware* requirements with attorney argument. *See Invitrogen Corp. v. Clontech Labs., Inc.*, 429
4 F.3d 1052, 1068 (Fed. Cir. 2005) (holding that “[u]nsubstantiated attorney argument regarding the
5 meaning of technical evidence is no substitute for competent, substantiated expert testimony”); *see*
6 *also Creative Compounds, LLC v. Starmark Labs.*, 651 F.3d 1303, 1311 (Fed. Cir. 2011)
7 (“conclusory attorney arguments [on invalidity] fail to raise a genuine issue of material fact”).

8 There is no evidence in the record that Recker is entitled to the priority date of the ’556
9 Provisional. Dr. Curran only cites the ’556 Provisional application date, but he did not provide any
10 analysis or opinion that the ’556 Provisional provides written description support for the claims of
11 Recker. *See L.A. Biomedical Research Inst. v. Eli Lilly & Co.*, 849 F.3d 1049, 1057 (Fed. Cir. 2017)
12 (“In order for a patent to be entitled to priority based on an earlier application or chain of
13 applications, each previous application in the chain must comply with the written description
14 requirement of 35 U.S.C. §112(a).”). Dr. Curran confirmed that he did not consider this issue at all
15 in his sworn deposition testimony on October 15, 2024. *See* Ex. 4, Curran 10/15/2024 Transcript,
16 at pg. 133, lines 11-23. Defendants therefore cannot produce at trial any evidence as to whether
17 Recker is entitled to a priority date earlier than its actual filing date of November 26, 2009. *See*
18 *Dynamic Drinkware*, 800 F.3d at 1378.

19 Accordingly, due to Defendants’ failure to satisfy the *Dynamic Drinkware* requirements,
20 Signify respectfully requests that the Court find that Defendants are not entitled to rely on the ’556
21 Provisional filing date for the basis of the invalidity defense as the ’320 Patent. *See Atlas Global*,
22 2023 WL 5346490, at *5 (E.D. Tex., Aug. 1, 2023) (recommending grant of motion for partial
23 summary judgment that asserted prior art patents were not entitled to provisional filing dates based
24 on defendant’s failure to satisfy *Dynamic Drinkware* requirements).

ii. ***Signify Has Demonstrated—And Defendants Do Not Contest—that the '320 Patent Is Entitled to an Effective Filing Date of June 5, 2009.***

Signify's technical expert for the '320 Patent, Dr. Ricketts, has provided un rebutted testimony detailing the entitlement of the '320 Patent to claim priority to the Chinese application:

B. The '320 Patent's claims are supported by the '320 Patent's priority document

I have examined a certified translation of the priority document (CN 200910139298.3) of the PCT application from which the '320 patent was originally nationalized. The disclosure of the priority document is the same as the '320 Patent and it includes the same figures. In my opinion, the priority document provides written description and enabling support for each and every element of the claims of the '320 Patent, and Dr. Curran makes no arguments that the priority document does not provide such support. The basis of my opinion is outlined in Exhibit 2. I understand that this means that the '320 Patent is entitled to the filing date of the priority document.

Ex. 12, Ricketts 8/19/2024 Report. Dr. Ricketts also provided a lengthy, claim-by-claim analysis in the form of a claim chart showing why the '320 Patent was entitled to claim priority to the Chinese application with an effective date of June 5, 2009. *See* Ex. 13, Ricketts Claim Chart.

Given that the text of the Chinese application (certified copy of priority document) is essentially a verbatim copy of the specification of the '320 Patent and includes the same figures, it is not surprising that Dr. Ricketts concluded the Chinese application provides written description and enabling support for each element of the asserted claims of the '320 Patent. For the same reason, it is also not surprising that Dr. Curran made no arguments that the Chinese application does not provide such priority support.

Defendants failed to adduce any evidence that can raise a triable issue of fact disputing the priority claim on the face of the '320 Patent. More specifically, Defendants have not challenged the entitlement of the '320 patent to claim priority to the Chinese application—a priority claim that was recognized by the USPTO and printed on the face of the '320 Patent. *See* Ex. 10. Defendants' expert, Dr. Curran, also failed to consider the issue or offer any opinions on this matter. *See* Ex. 14, Curran Transcript, at pg. 128, line 3 to pg. 130, line 7.

1 The undisputed evidence is that the Chinese priority application, when translated, provides
 2 nearly verbatim support for all aspects of the '320 Patent. Defendants have not argued that the '320
 3 Patent is not entitled to the June 5, 2009 priority date, and Defendants' expert offered no opinion
 4 on this matter. As a result, Defendants cannot satisfy their burden to demonstrate invalidity of the
 5 '320 Patent by clear and convincing evidence as every asserted basis for invalidity relies on
 6 Recker—a reference that is dated **after** the undisputed effective filing date of the '320 Patent.

7 It is axiomatic that a defense of invalidity under Section 102 or 103 requires a reference
 8 that is dated prior to the filing date of the patent-at-issue, not after. *See* 35 U.S.C. § 102. Because
 9 Defendants cannot raise a triable issue of fact regarding the availability of Recker as a reference
 10 **before** the earliest effective filing date of the '320 Patent, summary judgment dismissing
 11 Defendants' invalidity defense to the '320 Patent is appropriate.

12 **iii. The '320 Invention Was Reduced to Practice by Sept. 16, 2008.**

13 There is also a separate basis to dismiss Defendants' invalidity defense to the '320 Patent:
 14 the invention of the '320 Patent was reduced to practice by September 16, 2008, well before the
 15 either '556 Provisional and the Recker patent, and thus as a matter of law neither of these
 16 references can serve as the basis for Defendants' invalidity defense to the '320 Patent.

17 A patentee may establish an earlier invention date—and thereby antedate a prior art
 18 reference—by showing either an actual reduction to practice of the claimed invention or
 19 conception followed by diligence in reducing the invention to practice.⁴⁴ *See Mahurkar v. C.R.*
 20 *Bard, Inc.*, 79 F.3d 1572, 1577 (Fed. Cir. 1996)).

21 “To demonstrate an actual reduction to practice, the patentee must have: (1) constructed an
 22 embodiment or performed a process that met all the limitations of the claim and (2) determined
 23 that the invention would work for its intended purpose.” *Pernix IR. Pain DAC v. Alvogen Malta*
 24 *Operations, Ltd.*, Case No. 16-139-WCB, 2018 WL 2225113, at *44-44 (D. Del. May 15, 2018)
 25 (citing *Nintendo of Am. Inc. v. iLife Techs., Inc.*, 717 F. App'x 996, 1002 (Fed. Cir. 2017) and *In re*

26 _____
 27 ⁴⁴ If reduction to practice is established, then evidence of conception is not necessary. *See Fox*
 28 *Grp., Inc. v. Cree, Inc.*, 700 F.3d 1300, 1304 (Fed. Cir. 2012)).

1 *Steed*, 802 F.3d 1311, 1318 (Fed. Cir. 2015)). The patentee bears the burden to come forward with
 2 evidence of prior invention. *See Mahurkar*, 79 F.3d at 1576-78.

3 “Priority, conception, and reduction to practice are questions of law which are based on
 4 subsidiary factual findings.” *Teva Pharm. Indus. v. AstraZeneca Pharms. LP*, 661 F.3d 1378, 1381
 5 (Fed. Cir. 2011) (citing *Cooper v. Goldfarb*, 154 F.3d 1321, 1327 (Fed. Cir. 1998)). Where the
 6 underlying facts are undisputed, these issues are amendable to summary judgment. *See Abbott*
 7 *Biotechnology Ltd. v. Centocor Ortho Biotech, Inc.*, 35 F.Supp.3d 163, 174 (D. Mass. Apr. 16,
 8 2014) (citing *Bruckelmyer v. Ground Heaters, Inc.*, 445 F.3d 1374, 1377 (Fed. Cir. 2006)).

9 The inventors of the ’320 Patent developed a working prototype of their invention which
 10 they referred to as a “demonstrator” bulb. The demonstrator is shown operational in a video that
 11 has metadata dating it to September 16, 2008 (the “First Demonstrator”). *See* Ex. 17,
 12 SIGNIFY00090360. This same demonstrator is shown in photo with metadata of September 16,
 13 2008. *See* Ex. 18, SIGNIFY00090221. The demonstrator bulb met all elements of claim 1 of the
 14 ’320 Patent.

15 Claim 1 of the ’320 Patent recites:

16 [1a] A lighting device, comprising:

17 [1b] a light source comprising one or more light-emitting diodes configured
 18 for generating light along an optical axis,

19 [1c] a heat sink comprising a metal with an electrical resistivity being less
 20 than 0.01 Ω m. and configured for removing heat produced by the light source, the
 21 heat sink forming at least a portion of an outer enclosure,

22 [1d] a RF communication circuit, and

23 [1e] a first antenna connected to the RF communication circuit for
 24 communicating RF control signals and arranged within the outer enclosure,

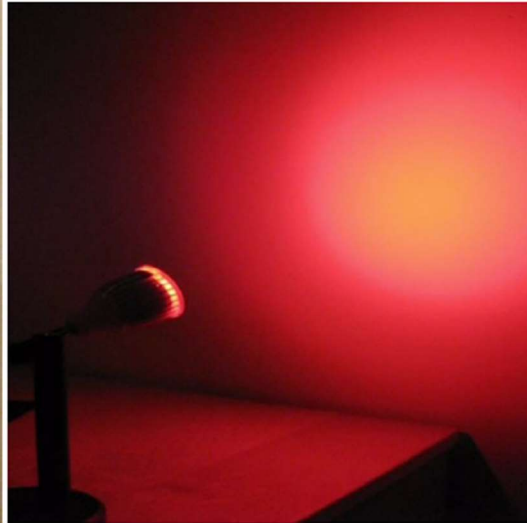
25 [1f] wherein the lighting device comprises one or more metallic components
 26 having an extension larger than at least 1/10 of a wavelength of the RF control
 27

signals and arranged below a virtual plane drawn orthogonal to the optical axis and going through the first antenna.

As to [1a], the First Demonstrator was an LED bulb. *See* Ex. 19, Ricketts Claim Chart at 2. The below image (right) depicts the First Demonstrator emitting light.

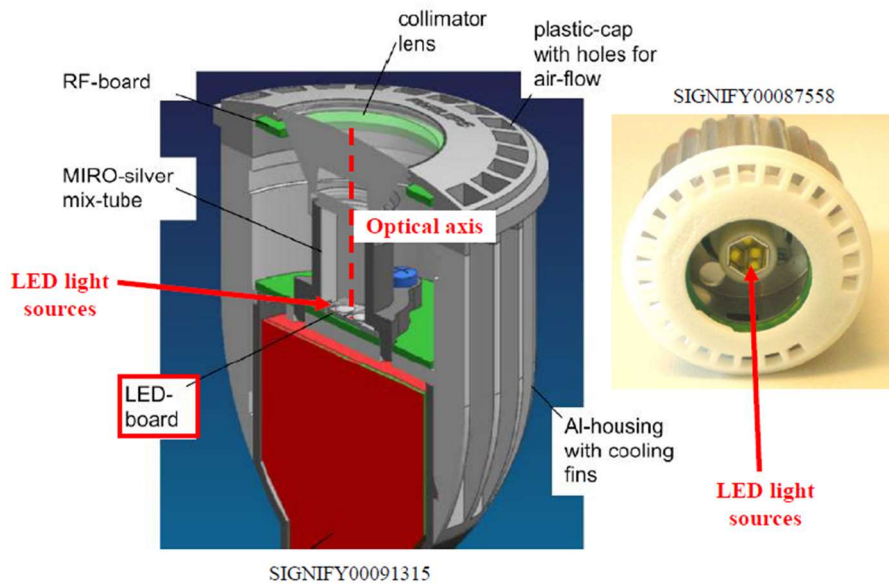


SIGNIFY00090221

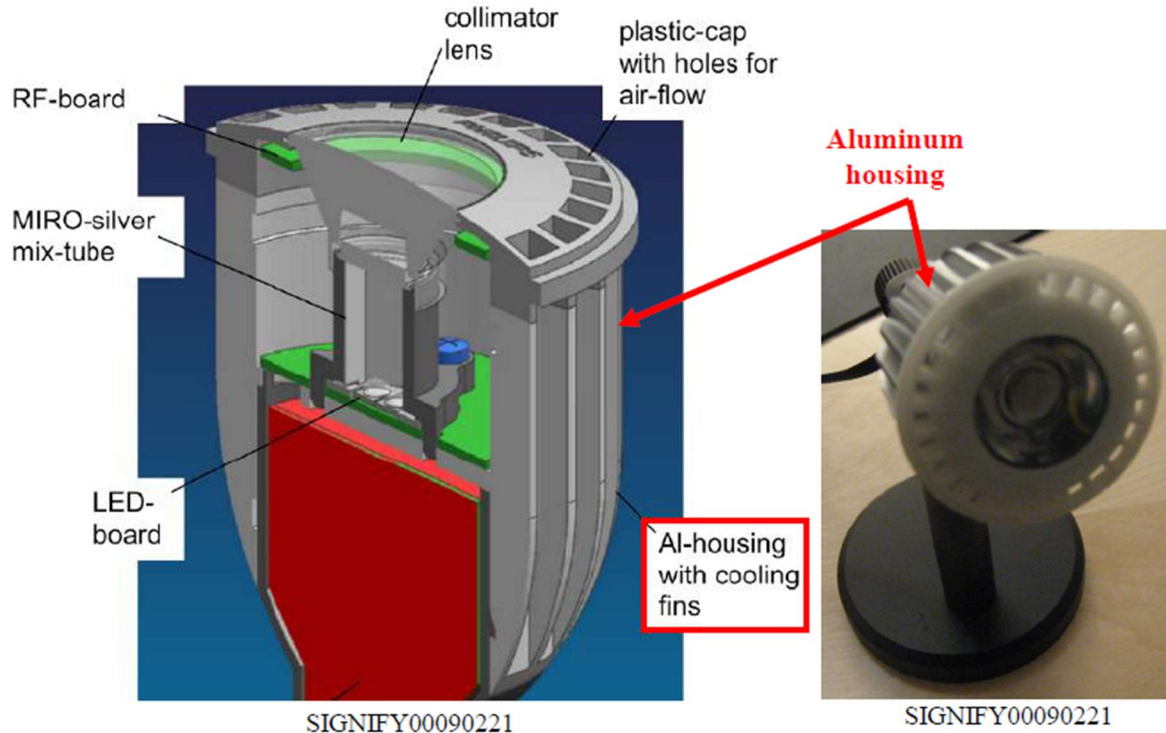


SIGNIFY00090360

As to [1b], the First Demonstrator included a light source from LEDs that generate light along an optical axis that extends in a direction upward from the surface of the LEDs (i.e., normal to the plane of the LEDs on the LED board). *See* Ex. 19, Ricketts Claim Chart at 3.



As to [1c], the First Demonstrator included a heat sink formed by an aluminum housing with cooling fins. Aluminum has a resistivity that is significantly less than $0.01 \Omega\text{m}$. The aluminum housing extends from the exterior to directly beneath the LED board. Any heat generated by the LEDs would pass through the LED board to the aluminum housing, which would conduct the heat to the exterior to be dissipated. *See* Ex. 19, Ricketts Claim Chart at 4.



Further to [1c], contemporaneous testing shows that the heat sink is configured to remove heat from the LEDs. The below thermal evaluation demonstrates that the highest temperature was measured at TC1, where the housing is below the LEDs. The next two highest temperatures were measured at TC-2 and TC-3. Because there was no driver in the First Demonstrator, the primary generator of heat within the bulb would be the LEDs, and thus the temperature measured at TC-2 and TC-3 demonstrates that the heat from the LEDs is conducted to the exterior of the aluminum housing. *See* Ex. 19, Ricketts Claim Chart at 5.

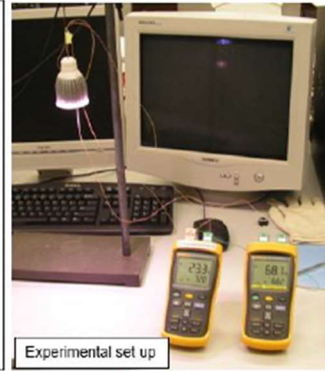
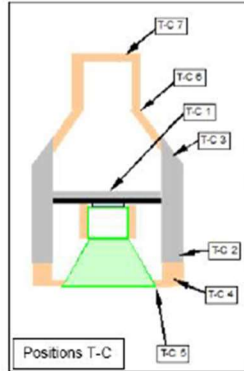
Thermal evaluation (status September 2008)

Settings:

RRGB LEDs in series, external driver,
no RF, $I=500\text{mA}$, $T_a = 23^\circ\text{C}$

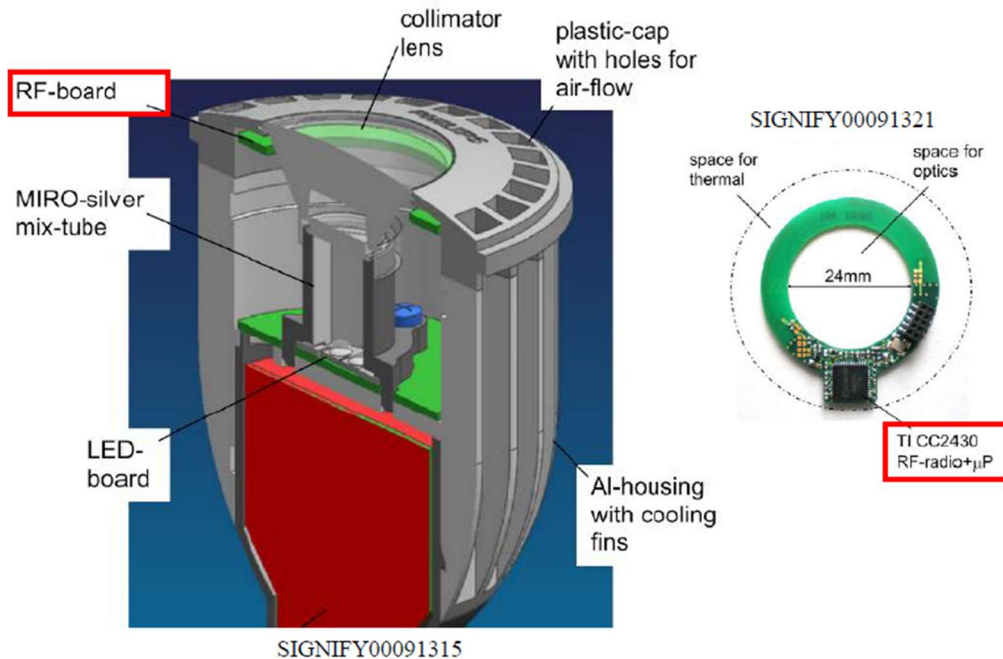
Measurements:

V_f	: 12.4V
TC1	: 78 °C
TC2	: 74 °C
TC3	: 74 °C
TC4	: 45 °C
TC5	: 40 °C
TC6	: 52 °C
TC7	: 38 °C



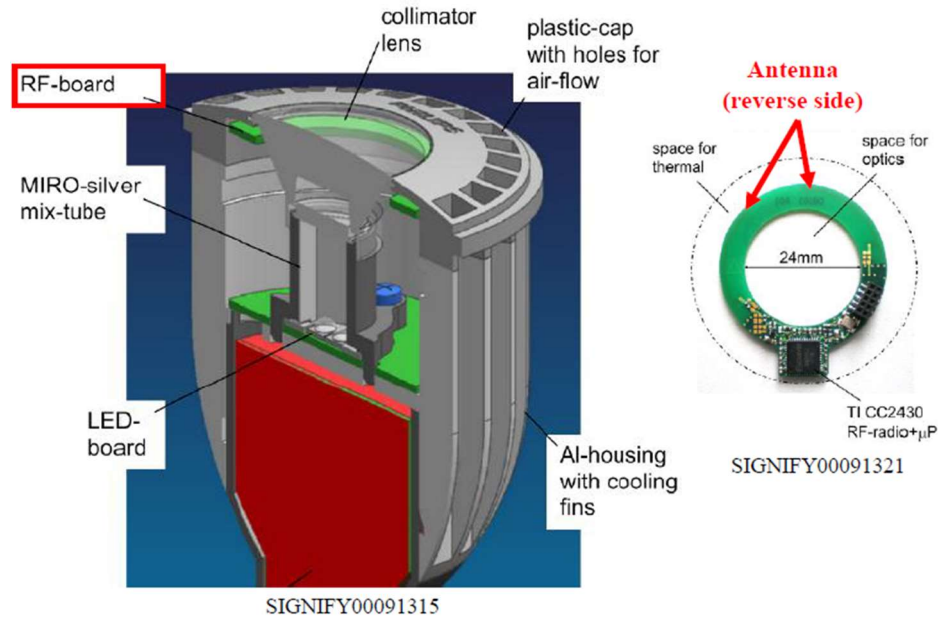
SIGNIFY00091317

As to [1d], the First Demonstrator RF-board included a TI CC2430, which is a System-on-Chip solution for 2.4 GHz IEEE 802.15.4 / ZigBee that includes a RF transceiver. *See* Ex. 19, Ricketts Claim Chart at 6-8.

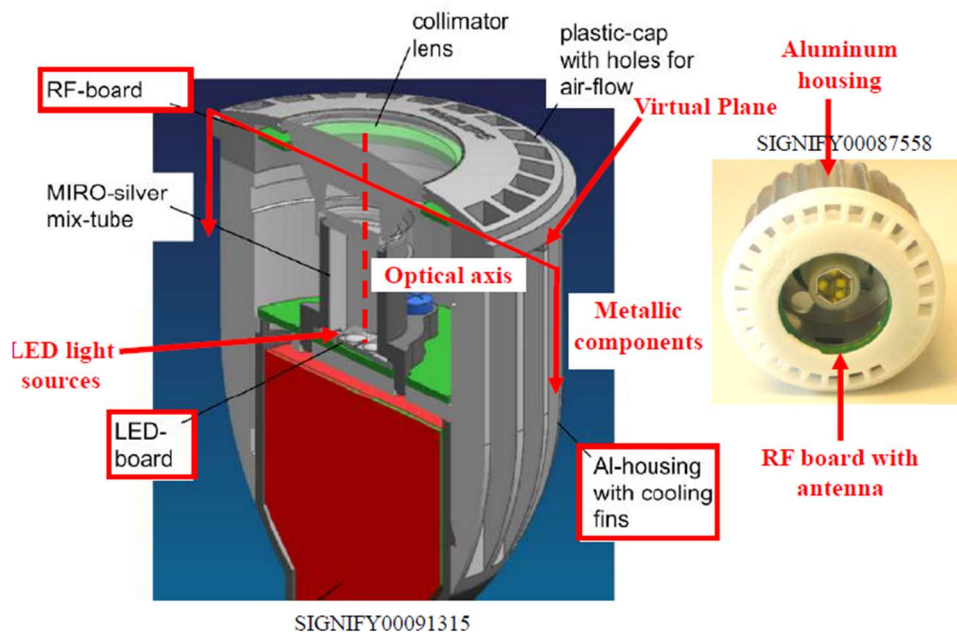


SIGNIFY00091315

As to [1e], the First Demonstrator RF-board included an antenna connected to the TI CC2430 chip for communicating received ZigBee control signals. The antenna on the RF-board was arranged within the enclosure of the bulb (i.e., arranged around the periphery of the light exit aperture and on the underside of the plastic cap). *See* Ex. 19, Ricketts Claim Chart at 9-11.



As to [1f], the aluminum housing of the First Demonstrator extended a length larger than 1/10 of a wavelength of the RF control signals (i.e., more than approximately 1.25 cm, 1/10 of a wavelength of a ZigBee signal transmitted at 2.4 GHz). The aluminum housing and all other metallic components were arranged below a plane drawn orthogonal to the optical axis and extending through the first antenna. The RF-board is disposed in the plastic-cap above the heatsink. See Ex. 19, Ricketts Claim Chart at 12.



Accordingly, the First Demonstrator contained all elements of claim 1. Since the First Demonstrator is evidenced by video and images dated September 16, 2008, Signify is entitled to an earlier reduction to practice date for claim 1 of the '320 Patent of September 16, 2008.

C. The Court May Dismiss Defendants' Invalidity Defense for the '320 Patent Based on Two Independent Reasons

As discussed *supra*, there are two independent bases to grant partial summary judgment: (1) Defendants have not introduced any evidence showing that the Recker reference acts as prior art before November 26, 2009, and thus Defendants' invalidity defense to the '320 Patent fails; and (2) because the '320 Patent was reduced to practice by September 16, 2008, Defendants' alleged prior art cannot serve as the basis for their invalidity defense to the '320 Patent.

Because both bases preclude Defendants' invalidity defense for the '320 Patent as a matter of law, Signify respectfully requests that the Court award partial summary judgment dismissing Defendants' invalidity defense for the '320 Patent.

V. THE COURT SHOULD ENTER PARTIAL SUMMARY JUDGMENT ON DEFENDANTS' INVALIDITY DEFENSE FOR THE '399 AND '138 PATENTS

A. Concise Statement of Material Facts

In accordance with Local Rule 56-1, Signify submits the following concise statement of material facts relevant to the disposition of the fourth issue presented for summary judgment:

1. Defendants stand accused of infringing the '138 and '399 Patents.⁴⁵
2. Defendants filed an Answer in this case alleging broadly, without any substance or facts, that the '138 and '399 Patents are invalid.⁴⁶
3. Defendants bear the burden of proof on their affirmative defenses of invalidity of the '138 and '399 Patents by clear and convincing evidence.⁴⁷

⁴⁵ See ECF 1, Complaint for Patent Infringement, Count Six, at ¶¶ 238-271.

⁴⁶ See ECF 26, Defendants' Answer to Plaintiffs' Complaint, Third Defense, at pg. 21.

⁴⁷ See *Transclean Corp. v. Bridgewood Services, Inc.*, 290 F.3d 1364, 1370 (Fed. Cir. 2002).

4. On May 19, 2023, Defendants served their invalidity contentions pursuant to Local Patent Rule 1-8 alleging that the '138 and '399 Patents were invalid as anticipated or obvious in view of U.S. Patent No. 7,049,761 ("Timmermans").⁴⁸

5. On July 22, 2024, Defendants served an expert report of John W. Curran, Ph.D. alleging that the '138 and '399 Patents were invalid as anticipated or obvious in view of Timmermans.⁴⁹

6. Dr. Curran's invalidity opinions and Defendants' affirmative invalidity as to the '138 and '399 Patents rely on Timmermans as being fully enabled.⁵⁰

7. In sworn deposition testimony on October 16, 2024, Dr. Curran admitted that Timmermans does not enable one of ordinary skill in the art how to make and use a user interface disclosed in that reference and relied upon as being fully enabled in the prior art.⁵¹

B. Signify Is Entitled to Summary Judgment on Defendants' Invalidity Defense for the '138 and '399 Patents

Signify requests that the Court grant partial summary judgment dismissing Defendants' affirmative defense of invalidity of the '399 Patent and the '138 Patent, as the prior art on which all of Defendants' affirmative defenses rely does not enable one of skill in the art to make and use the claimed invention. Specifically, Defendants' expert has conceded: (1) that the chief reference relied upon for anticipation under 35 U.S.C. § 102 and obviousness under 35 U.S.C. § 103 does not actually enable one of skill in the art to make and use critical aspects of the allegedly invalidating disclosure ; and (2) that one of skill in the art would not have known how to implement the non-enabled features at that time.

⁴⁸ See Ex. 1, Oczek Decl., at ¶ 28.

⁴⁹ See Ex. 22, Curran Amended Opening Expert Report at ¶¶ 309-511.

⁵⁰ *Id.*

⁵¹ See Ex. 9, Curran 10/16/2024 Transcript at pg. 480, lines 1-9. See also pg. 449, line 24 to pg. 450, line 4; pg. 450, line 23 to pg. 451, line 2; pg. 456, line 16 to pg. 457 line 17; and pg. 479, lines 9-14.

1 In his deposition on October 16, 2024, Dr. Curran conceded that Timmermans was
2 inherently flawed in that the reference failed to teach one of ordinary skill in the art how to build
3 the power supply circuitry and LED tube disclosed in that reference:

4 Q. Sure. Do you believe the disclosure of Timmermans, as described and
5 disclosed in 2001, teaches one of ordinary skill in the art to build the power
6 supply circuitry and LED tube that's set forth in the Timmermans patent?

7 **A. Minus the parts I'm objecting to, yes.**

8 Ex. 9, Curran 10/16/2024 Transcript at pg. 449, line 24 to pg. 450, line 4. Dr. Curran then clarified
9 that the missing parts he was "objecting to" as not enabled in Timmermans included two aspects:
10 how to perform or use the user input to PWM circuit 52 of Timmermans, and how to perform or
11 use such a circuit. Ex. 9 Curran 10/16/2024 Transcript at pg. 450, line 23 to pg. 451, line 2 ("He
12 doesn't disclose how to do the user input, and he certainly doesn't disclose how to use his circuit -
13 - to put in components in his circuit to be able to compensate for temperature changes"). Just as
14 importantly, Dr. Curran then conceded that one of ordinary skill in the art would not know how to
15 provide the user input:

16 Q. Would a person of ordinary skill in the art in 2001 know how to provide the
17 user input?

18 **A. I would say no simply because when I'd be meeting there with the folks**
19 **in Michigan in 2009 and 10, they were still struggling with fluorescent**
20 **replacement tubes, and -- and the meetings that I was at, there were no**
21 **discussions regarding any kind of user inputs. They were still working**
22 **on how do you actually get a bulb that you can turn around and replace**
23 **a fluorescent tube with. So I don't -- and the reason -- particularly on**
24 **the user interface, it may -- it might be relatively easy to do it from an**
25 **electronics point of view, but from the point of view of the -- how do you**
26 **do it, where do you put it, how do you allow the person to access it --**
27 **again, it's a fluorescent tube, it's up in the ceiling -- I don't think**

1 **somebody of ordinary skill in the art would know that, because how**
2 **many people of ordinary skill in the art are trying to make adjustments**
3 **on a -- or trying to turn off switch -- like fluorescent switches just to**
4 **turn it on and off, if it's up in the ceiling? So to me, that's a major, major**
5 **thing that the lighting industry has struggled for a while, and certainly**
6 **was struggling with it at this point.**

7 Q. Eight years after the filing of Timmermans?

8 A. Yes.

9 Ex. 9, Curran 10/16/2024 Transcript at pg. 456, line 16 to pg. 457 line 17. Dr. Curran even went
10 so far as to confirm that one of skill in the art would not be able to practice the disclosure of
11 Timmermans without undue experimentation because Timmermans does not “totally disclose
12 everything that he has in his patent back to the user input” and that “one of ordinary skill in the art
13 would not be able to – be able to use, without major experimentation, I believe, to try to start
14 putting that user input.” Ex. 9, Curran 10/16/2024 Transcript at pg. 479, lines 9-14. Dr. Curran
15 then again confirmed that there was “no information” on the user input and a person of ordinary
16 skill in the art could not use the disclosure of Timmermans without undue experimentation. Ex. 9,
17 Curran 10/16/2024 Transcript at pg. 480, lines 1-9.

18 To anticipate or render a claim obvious, the prior art, taken as a whole, must enable a skilled
19 artisan to make and use the claimed invention. *See In re Kumar*, 418 F.3d 1361, 1368 (Fed. Cir.
20 2005). While a reference must be fully enabled to anticipate under Section 102, a prior art reference
21 asserted under Section 103 does not necessarily have to enable its own disclosure, i.e., be “self-
22 enabling,” to be relevant to the obviousness inquiry. *See Symbol Techs., Inc. v. Opticon, Inc.*, 935
23 F.2d 1569, 1578 (Fed. Cir. 1991) (“While a reference must enable someone to practice the
24 invention in order to anticipate under § 102(b), a non-enabling reference may qualify as prior art
25 for the purpose of determining obviousness under § 103”). For example, a non-enabling reference
26 may be relied on solely to provide a motivation to combine other references or another reference
27
28

may be relied on to supply the limitation from the non-enabled reference. *Raytheon Techs. Corp. v. General Electric Co.*, 993 F.3d 1374, 1380 (Fed. Cir. 2021).

However, while a non-self-enabled reference may be relevant to an obviousness inquiry, the Federal Circuit has “expounded the principle that if an obviousness case is based on a non-self-enabled reference, and no other prior art reference or evidence would have enabled a skilled artisan to make the claimed invention, then the invention cannot be said to have been obvious.” *Raytheon*, 993 F.3d 1374 at 1377 (emphasis added). Thus, when the non-enabled reference in *Raytheon* was the only reference relied on as disclosing certain aspects of the claimed invention, the Federal Circuit found the lack of enablement dispositive and reversed the finding of obviousness. *Id.* at 1382.

Here, Defendants’ expert, Dr. Curran, repeatedly relied on the non-enabled “user interface” of Timmermans as disclosing a variety of aspects of each asserted claim of the ’399 Patent and the ’138 Patent. Defendants and Dr. Curran rely upon the non-enabled “user interface” to disclose limitations of asserted independent claims 7, 17, 58, and 59 and dependent claims 8, 19, and 60 of the ’399 Patent and to disclose limitations of asserted independent claim 1 and dependent claims 2, 9, 10, 11, 20, 22 of the ’138 Patent.

Defendants and Dr. Curran explicitly rely upon the non-enabled “user interface” of Timmermans for features of the ’138 and ’399 asserted claims, including, for example, the following claim elements:

Claim Element	References to Curran Report (Ex. 2)
“at least one controller coupled to the at least one LED and configured to receive a power-related signal from an alternating current (A.C.) power source that provides signals other than a standard A.C. line voltage, the at least one controller further configured to provide power to the at least one LED based on the power-related signal”	’399 Patent claim elements 7-b (Curran report paras. 326-327) and 17-b (Curran report paras. 358-359); ’138 Patent claim element 1-b (Curran report paras. 446-448).
“wherein the A.C. power source is an A.C. dimmer circuit”	’399 Patent claim elements 7-c (Curran report paras. 330-331) and 17-c (Curran report paras. 364-365); ’138 Patent claim element 2-a (Curran report paras. 454-455)

Claim Element	References to Curran Report (Ex. 2)
“wherein the A.C. dimmer circuit is controlled by a user interface to vary the power-related signal, and wherein the at least one controller is configured to variably control at least one parameter of light generated by the at least one LED in response to operation of the user interface”	’399 Patent claim elements 7-d (Curran report paras. 334-335) and 17-d (Curran report paras. 368-369); ’138 Patent claim element 9-a (Curran report paras. 462-463)
“wherein the operation of the user interface varies a duty cycle of the power-related signal, and wherein the at least one controller is configured to variably control the at least one parameter of the light based at least on the variable duty cycle of the power-related signal”	’399 Patent claim element 7-e (Curran report paras. 338-339); ’138 Patent claim element 10-a (Curran report paras. 469-470)
“wherein the at least one parameter of the light that is variably controlled by the at least one controller in response to operation of the user interface includes at least one of an intensity of the light, a color of the light, a color temperature of the light, and a temporal characteristic of the light”	’399 Patent claim element 8-a (Curran report paras. 345-346); ’138 Patent claim element 11-a (Curran report paras. 476-477)
“an adjustment circuit to variably control the at least one parameter of light based on the varying power-related signal”	’399 Patent claim element 17-e (Curran report paras. 372-373); ’138 Patent claim element 20-a (Curran report paras. 487-489)
“power circuitry to provide at least the power to the at least one LED based on the varying power-related signal”	’399 Patent claim elements 17-f (Curran report paras. 376-377); ’138 Patent claim element 20-b (492-493)
“the adjustment circuit is coupled to the DC converter and is configured to variably control the at least one LED based on the filtered rectified power-related signal”	’399 Patent claim element 19-a (Curran report paras. 393-394); ’138 Patent claim element 22-a (Curran report paras. 507-508)
“the at least one controller is configured to provide the second power as a varying power to the at least one LED based on variations of the first power”	’399 Patent claim element 58-c (Curran report paras. 406-407)
“at least one controller coupled to the at least one LED and configured to receive first power from an alternating current (A.C.) dimmer circuit, the A.C. dimmer circuit being controlled by a user interface to vary the first power, the at least one controller further configured to provide second power to the at least one LED based on the first power”	’399 Patent claim element 59-b (paras. 416-417)
“the A.C. dimmer circuit includes a triac responsive to the user interface so as to variably control a duty cycle of an A.C. signal and thereby vary the first power”	’399 Patent claim element 59-c (para. 421-422)
“the at least one controller is configured to variably control at least one parameter of light generated by the at least one LED in response to operation of the user interface”	’399 Patent claim element 59-d (paras. 425-426)

Claim Element	References to Curran Report (Ex. 2)
“wherein the at least one parameter of the light that is variably controlled by the at least one controller in response to operation of the user interface includes at least one of an intensity of the light, a color of the light, a color temperature of the light, and a temporal characteristic of the light”	’399 Patent claim element 60-a (paras. 433-434)

Timmermans fails as an anticipatory reference under 35 U.S.C. § 102. This is because Defendants rely on the non-enabled disclosure of the “user interface” and “PWM circuit” in Timmermans for claim elements of the “controller,” the “A.C. dimmer circuit,” the “adjustment circuit,” and “the power circuitry”—structures that are repeated throughout the asserted claims of the ’399 and ’138 Patents. Indeed, all asserted independent claims rely upon this non-enabled feature of Timmermans. And further, with respect to Defendants’ defense of alleged obviousness, Dr. Curran’s opinion fails to explain how the combination of Timmermans and Hui would work in the absence of the non-enabled “PWM circuit” in Timmermans or how Hui would provide an enabled input to the “PWM circuit.”

Accordingly, Defendants’ entire defense of patent invalidity to the ’399 and ’138 Patents is deficient and fails as a matter of law for both alleged anticipation and obviousness, and partial summary judgment should be granted on this defense.

VI. CONCLUSION

For all the reasons set forth herein, Signify respectfully requests that the Court grant partial summary judgment in favor of Signify on the following issues:

- (1) infringement of the ’399, ’138, and ’577 Patents;
- (2) Defendants’ invalidity defense under Section 112;
- (3) Defendants’ invalidity defense for the ’320 Patent; and
- (4) Defendants’ invalidity defense for the ’399 and ’138 Patents.

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Respectfully submitted,

2 /s/ F. Christopher Austin

3 F. Christopher Austin (SBN 6559)
4 WEIDE & MILLER, LTD.
5 10655 Park Run Drive, Suite 100
6 Las Vegas, Nevada 89144
7 Telephone: (702) 382-4804
8 Email: caustin@weidemiller.com

9 Jeremy P. Occek (*Pro hac vice*)
10 BOND, SCHOENECK & KING, PLLC
11 200 Delaware Avenue
12 Buffalo, New York 14202
13 Telephone: (716) 416-7000
14 Email: jpoccek@bsk.com

15 Jonathan L. Gray (*Pro hac vice*)
16 BOND, SCHOENECK & KING, PLLC
17 One Lincoln Center
18 Syracuse, New York 13202
19 Telephone: (315) 218-8500
20 Email: jlgray@bsk.com

21 Adam D. Swain (*Pro hac vice*)
22 ALSTON & BIRD
23 950 F Street, NW
24 Washington, DC 20004
25 Telephone: (202) 239-3622
26 Email: Adam.Swain@alston.com

27 J. Ravindra Fernando (*Pro hac vice*)
28 ALSTON & BIRD
1120 South Tryon Street, Suite 300
Charlotte, NC 28203-6818
Telephone: (704) 444-1136
Email: Ravi.Fernando@alston.com

COUNSEL FOR PLAINTIFFS
Signify North America Corporation and
Signify Holding B.V.